THE HERBACEOUS GROUND, ROYAL BOTANIC GARDENS, KEW, showing beds arranged according to the natural orders.

Shaw. Mr. Shaw came to this country from England in 1818, and with a small stock of hardware began business in one room which also served as bedroom and kitchen. Within twenty years he had acquired a fortune and retired from active business to devote the remaining forty-nine years of his life to travel and to the management of a garden surrounding his country-home on the outskirts of St. Louis. In 1859 he erected a small museum and library, and in 1866 Mr. James Gurney was brought to this country as head gardener. Mr. Shaw died in 1889, leaving his estate largely for the establishment of the Missouri Botanical Garden, but providing also for the Henry Shaw School of Botany of Washington University and a park for the city. With this liberal endowment constantly increasing as the real estate becomes more productive, Dr. William Trelease, the first director, and Dr. George T. Moore, the present director, have conducted an institution not only of value to the city of St. Louis but largely contributing to the advance of botanical science.

The New York Botanical Garden, largely through the efforts of Dr. N. L. Britton, the present director, was authorized by the New York legislature in 1891. The act of incorporation provided that when the corporation created should have secured by subscription a sum not less than $250,000 the city was authorized to set aside for the garden as much as 250 acres from one of the public parks and to expend one half million dollars for the construction and equipment of the necessary buildings. The conditions were met in 1895, and the institution has since grown in its land, and its buildings, in its collections and in its herbaria, so that, in association with the department of botany of Columbia University, it now rivals in its material equipment and in the research work accomplished any botanical institution in the world.

THE SECOND PAN-AMERICAN SCIENTIFIC CONGRESS

THERE will be held at Washington from Monday, December 27, to Saturday, January 9, the second Pan-Amer-

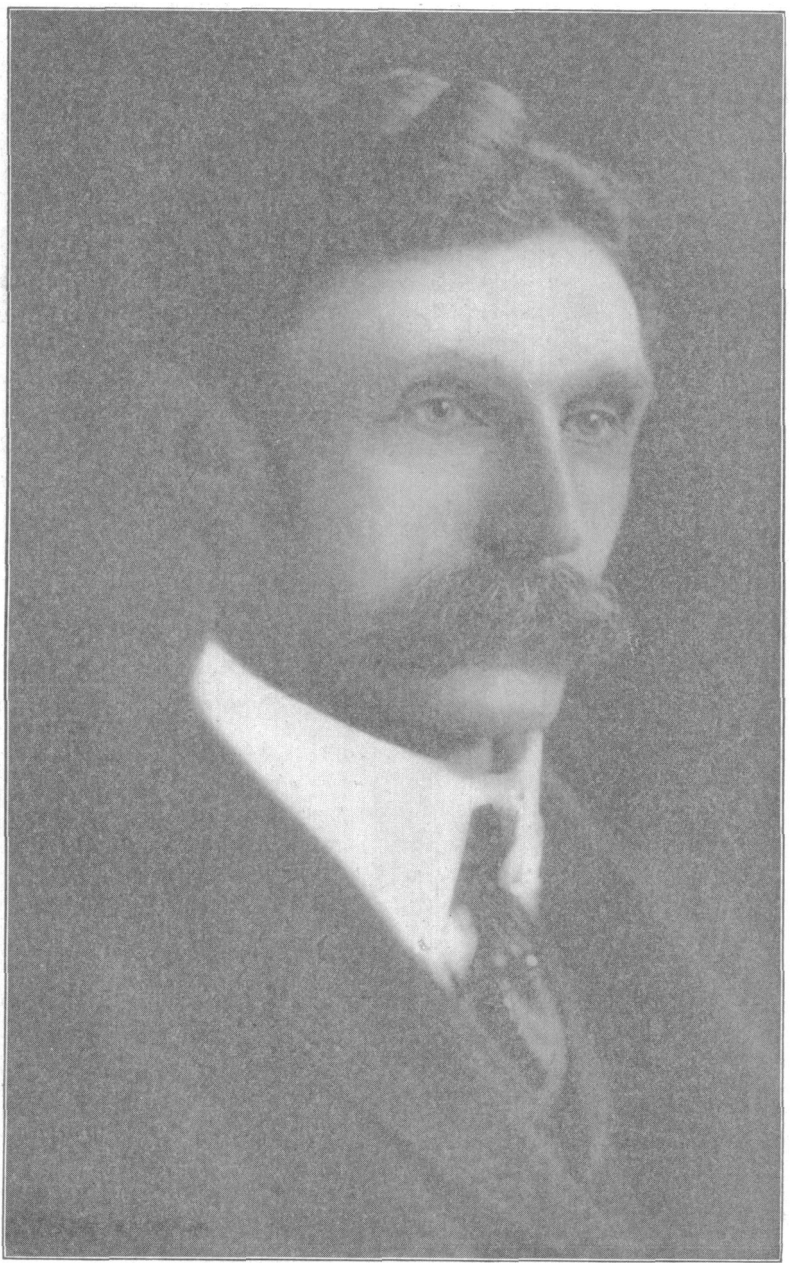
ican Scientific Congress, authorized by the first congress held in Santiago, Chili, six years previously. This was one of the series of congresses previously conducted by the republics of Latin America. The Washington congress, which is under the auspices of the government of the United States, with Mr. William Phillips, third assistant secretary of state, as chairman of the executive committee, will meet in nine sections, which, with the chairmen, are as follows:

I. Anthropology, Wm. H. Holmes.
II. Astronomy, Meteorology, and Seismology, Robert S. Woodward.
III. Conservation of Natural Resources, Agriculture, Irrigation and Forestry, George M. Rommel.
IV. Education, P. P. Claxton.
V. Engineering, W. H. Bixby.
VI. International Law, Public Law, and Jurisprudence, James Brown Scott.
VII. Mining and Metallurgy, Economic Geology, and Applied Chemistry, Hennen Jennings.
VIII. Public Health and Medical Science, Wm. C. Gorgas.
IX. Transportation, Commerce, Finance, and Taxation, L. S. Rowe.

Each section is divided further into subsections, of which there are forty-five, each with a special committee and program. Several of the leading national associations of the United States, concerned with the investigation of subjects of pertinent interest to some of the sections of the congress, have received and accepted invitations from the executive committee of congress to meet in Washington at the same time and hold one or more joint sessions with a section or subsection of corresponding interest. Thus the nineteenth International Congress of Americanists will meet in Washington during the same week with the Pan-American Scientific Congress, and joint conferences will be held for the discussion of subjects of common interest to members of the two organizations.

As an example of the wide scope of the congress we may quote the ten subsections into which the section of education is divided. Each of these subsections is under a committee of men distinguished in educational work and men of eminence have been invited to take part in the proceedings. The subjects proposed for discussion by each of these sections are:

Elementary Education: To what extent should elementary education be supported by local taxation, and to what extent by state taxation? What should be the determining factors in the distribution of support? *Secondary Education:* What should be the primary and what the secondary purpose of high school education? To what extent should courses of study in the high school be determined by the requirements for admission to college, and to what extent by the demands of industrial and civic life? *University Education:* Should universities and colleges supported by public funds be controlled by independent and autonomous powers, or should they be controlled directly by central state authority? *Education of Women:* To what extent is coeducation desirable in elementary schools, high schools, colleges and universities? *Exchange of Professors and Students between Countries:* To what extent is an exchange of students and professors between American republics desirable? What is the most effective basis for a system of exchange? What plans should be adopted in order to secure mutual recognition of technical and professional degrees by American Republics? *Engineering Education:* To what extent may college courses in engineering be profitably supplemented by practical work in the shop? To what extent may laboratory work in engineering be replaced through cooperation with industrial plants? *Medical Education:* What preparation should be required for admission to medical schools? What should be the minimum requirements for graduation? What portion of the faculty of a medical school should be



JOSEPH AUSTIN HOLMES,

First director of the United States Bureau of Mines, whose death is a serious loss to the scientific and economic work conducted under the national government.

required to give all their time to teaching and investigation? What instruction may best be given by physicians engaged in medical practice? *Agricultural Education:* What preparation should be required for admission to state and national colleges of agriculture? To what extent should the courses of study in the agricultural college be theoretical and general, and to what extent practical and specific? To what extent should the curriculum of any such college be determined by local conditions? *Industrial Education:* What should be the place of industrial education in the school system of the American republics? Should it be supported by public taxation? Should it be considered as a function of the public school system? Should it be given in a separate system under separate control? How and to what extent may industrial schools cooperate with employers of labor? *Commercial Education:* How can a nation prepare in the most effective manner its young men for a business career that is to be pursued at home or in a foreign country.

SCIENTIFIC ITEMS

We record with regret the death at the age of ninety-two of Henri Fabre, the distinguished French entomologist and author; of William Henry Hoar Hudson, late professor of mathematics at King's College, London; of Dr. Ugo Schiff, professor of chemistry at Florence; of Susanna Phelps Gage, known for her work on comparative anatomy; of Charles Frederick Holder, the California naturalist, and of Dr. Austin Flint, a distinguished physician and alienist of New York City.

Dr. Ray Lyman Wilbur, professor of medicine, has been elected president of Leland Stanford Junior University. He will on January 1 succeed Dr. John Caspar Branner, who undertook to accept the presidency for a limited period on the retirement of Dr. David Starr Jordan, now chancellor of the university. Dr. Wilbur graduated from the academic department of Stanford University in 1896.

At the Manchester meeting of the British Association for the Advancement of Science, Sir Arthur J. Evans, F.R.S., the archeologist, honorary keeper of the Ashmolean Museum, Oxford, was elected president for next year's meeting, to be held at Newcastle-on-Tyne. The meeting of 1917 will be held at Bournemouth.

Dr. Max Planck, professor of physics at Berlin, and Professor Hugo von Seeliger, director of the Munich Observatory, have been made knights of the Prussian order pour le mérite. Dr. Ramón y Cajal, professor of histology at Madrid, and Dr. C. J. Kapteyn, professor of astronomy at Gröningen, have been appointed foreign knights of this order.

Mr. Jacob H. Schiff, a member of the board of trustees of Barnard College and its first treasurer, has given $500,000 to the college for a woman's building. It will include a library and additional lecture halls as well as a gymnasium, a lunch room and rooms for students' organizations.

By the will of the late Dr. Dudley P. Allen, formerly professor of surgery in the Western Reserve University, $200,000 has been set aside as a permanent endowment fund for the Cleveland Medical Library.